

**KNOWLEDGE OF AIDS IN SOUTHERN AFRICA, WITH
SPECIAL EMPHASIS ON SOUTH AFRICA:
A CRITICAL REVIEW**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own work, and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature

Date

SUMMARY

AIDS is a killer disease which is spreading like wildfire in all sectors of the population of Southern Africa, in spite of AIDS prevention programmes that are implemented in these communities. Why does this state of affairs exist? Conflicting views exist about the origin of AIDS and about the knowledge of different racial groups with regard to the disease. A number of researchers have argued that knowledge or information dissemination is not a necessary condition for behavioural change, as is evident from historical efforts to combat sexually transmitted disease. However, this thesis shows that knowledge is a variable or component that has frequently been used in almost all studies done on AIDS in Southern Africa. The present author thus searches for the rationale for the phenomenon that knowledge of AIDS does not necessarily result in preventative behavioural change. In this regard the importance of effective communication strategies and cognisance of the nature of target groups are highlighted, because negligence regarding these factors can serve as an impediment to behavioural change. The whole social fabric of the target community and basic individual needs are important elements that should also be major considerations before preventative programmes are implemented.

OPSOMMING

VIGS is 'n dodelike siekte wat snel versprei in alle sektore van die bevolking van Suider- Afrika, ten spyte van VIGS-verkomingsprogramme wat in hierdie gemeenskappe geïmplementeer word. Waarom gebeur dit? Botsende menings bestaan oor die oorsprong van VIGS en oor die kennis van die verkillende rassegroepe ten opsigte van die siekte. 'n Aantal navorsers is van mening dat kennis of informasieverspreiding nie 'n noodsaaklike vereiste is om gedrag te verander nie, soos blyk uit die geskiedenis van vorige pogings om seksueel oordraagbare siektes te beveg. In hierdie tesis word egter geïllustreer dat kennis 'n veranderlike of komponent is wat dikwels gebruik is in byna alle vorige studies oor VIGS in Suider-Afrika. Dié huidige skrywer ondersoek dus die rasionaal vir die verskynsel dat kennis van VIGS nie noodwendig tot voorkomende gedragsverandering lei nie. In hierdie verband word die belangrikheid van effektiewe kommunikasiestrategieë en kennis van die aard van die teikengroep beklemtoon, aangesien verwaarloosing van hierdie faktore as struikelblok in gedragsverandering kan dien. Die totale sosiale struktuur van die teikengemeenskap en basiese individuele behoeftes is belangrike elemente wat ook in ag geneem moet word voordat voorkomingsprogramme geïmplementeer word.

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KNOWLEDGE OF AIDS IN SOUTHERN AFRICA, WITH SPECIAL EMPHASIS ON SOUTH AFRICA: A CRITICAL REVIEW

1. INTRODUCTION

Rickett and Emery (quoted in Luiz, Roets & Smart, 1995) defined the Acquired Immune Deficiency Syndrome (AIDS) as a condition in which the immune system is severely damaged by an invading virus, the Human Immune Deficiency Virus (HIV). Because of the damage to the immune system, the body is subject to infection and attack by other diseases. Ankomah (1994) pointed out that scientists, doctors and academics questioned this view. Duesberg (in Ankomah, 1994) said that HIV was not the sole cause of AIDS and did not necessarily lead to AIDS. According to Duesberg, AIDS is not one disease but a number of unrelated illnesses. Duesberg claimed that in the West, the definition of AIDS includes 29 unrelated illnesses ranging from pneumocystic pneumonia to cervical cancer. In Africa, the Bangui definition of AIDS, formulated by the World Health Organisation, was adopted in October 1995. This definition is not linked to HIV but to the clinical symptoms of chronic diarrhoea, prolonged fever, 10% body weight loss in two months and a persistent cough. Duesberg (in Ankomah, 1994) argues that Africans often die of AIDS-like symptoms after their systems have been weakened by malaria, tuberculosis, cholera or parasitic infections. The link between HIV and AIDS is at present a very controversial issue.

Kustner, Swanevelder and Van Middelkoop (1994) postulated that, since 1980, AIDS has become the sixth leading cause of years of potential life lost before the age of 65. Whiteside (quoted in "AIDS Set", 1999) reported that AIDS is expected to decrease life expectancy in Southern Africa by 20 years to about the age of 40 by the year 2008.

Despite these facts AIDS affects people of all social strata – poor and rich, educated and uneducated, young and old, homosexual and heterosexual. AIDS has no colour preference. Table 1 is indicative of this.

The Department of Health (1995, p.2) gave the following exposition of AIDS cases in South Africa, as set out in Table 1.

Table 1

Numbers of AIDS Cases in South Africa in 1995, According to the Department of Health

<u>Asians</u>		<u>Blacks</u>		<u>Coloureds</u>		<u>Whites</u>		<u>Unknown</u>	<u>Total</u>
M	F	M	F	M	F	M	F	?	
11	5	3808	4099	151	156	487	21	46	8784
13%	0.57%	43.4%	46.7%	1.72%	1.78%	5.54%	0.24%	52%	

AIDS has no boundaries or borders. It is present in industrialised and underdeveloped countries. According to the World Health Organisation (WHO), AIDS is a worldwide killer disease and has its worst effects in Africa. Gesheker (quoted in Ankomah, 1994), in a paper entitled "Rethinking the AIDS epidemic in Africa ", disagreed with the WHO on its African claims. Gesheker claimed that the official statistics on African AIDS have been unreliable to the point of absurdity, and that during the period 1981 to 1994 there have been only 151,000 confirmed AIDS cases in Africa.

The above facts are not the only conflicting views about AIDS. Its hypothesized origin (that is, that the disease originates from homosexuals and from Africa) has also been an area which has aroused heated debates, ranging from political and racist to dependency issues fostered by the first world countries. For example, the World Bank was accused of exploiting the AIDS pandemic on the African continent by pressurising African states into taking loans to pay for unproved AIDS prevention programmes ("World Bank exploiting", 1997). In the same source an economic perspective of the effects of AIDS appeared. It

claimed that AIDS is expected to slow the growth of Africa's Gross Domestic Product (GDP), to reverse its hard-won development gains and to make its nations worse off for decades to come. This will hamper the development of African states economically, technologically and financially.

Apart from global arguments and disputes about the nature of AIDS, regional arguments have also emerged. For example, the results of the 9th National HIV survey of women attending antenatal clinics in South Africa estimated that 22,8% of women attending antenatal clinics of public health services nationally were infected with HIV by the end of 1998 (Department of Health, 1999). This represents a 33.8% increase in the prevalence of HIV since 1997. Table 2 shows the 1998 prevalence rates in relation to prevalence rates obtained in 1997.

Table 2

HIV Prevalence by Province, Comparing 1997 and 1998 Antenatal Survey Findings

PROVINCE	Est (HIV+) 95% CI	Est (HIV+) 95% CI
	1998	1997
KwaZulu/Natal (KZN)	32.5 (29.3 – 35.7)	26.9 (24.9 – 29.0)
Mpumalanga(MP)	30.0 (24.3 – 35.8)	22.6 (20.5 – 24.8)
Free State (FS)	22.8 (20.2 – 25.3)	20.0 (17.1 – 22.2)
Gauteng (GP)	22.5 (19.2 – 25.7)	17.1 (15.1 – 19.2)
North West (NW)	21.3 (19.1 – 23.4)	18.1 (16.2 – 20.1)
Northern Province (NP)	11.5 (9.2 – 13.7)	8.2 (6.9 – 9.7)
Eastern Cape (EC)	15.9 (11.8 – 20.0)	12.6 (11.0 – 14.4)
Northern Cape (NC)	9.9 (6.4 – 13.4)	8.6 (6.4 – 11.3)
Western Cape (WC)	5.2 (3.2 – 7.2)	6.3 (5.2 – 7.5)
National	22.8	17.04

Source: Health Systems Research & Epidemiology, Department of Health, 1999

Dr. Manto Tshabalala-Msimang, the South African Minister of Health, blamed the Apartheid regime for the spread of AIDS in South Africa and claimed that no efforts were

made to control its spread ("Apartheid Blamed", 1999). However, Stockton (quoted in Oosthuizen, 1994), claimed that the South African government was able to approve only R20 000 000 (less than \$6000 000) for AIDS programmes in 1992. He claimed that various non-government organisations (such as the NPPHCN), sponsored by private initiative, focused their activities on educational and preventative work in the area of AIDS. The opinion of the present author is that the amount set aside for AIDS proves that AIDS was not a priority for the Apartheid government in the early 1990's. This was probably due to the low incidence of AIDS among the population of South Africa. However, this has changed under the present Government, due to the increase in HIV or AIDS cases. The growing number of HIV positive women is indicative of this. Of concern is the increase in the rate among 15 – 19 year old girls from 12.7% in 1997 to 20.0% in 1998. Table 3 is indicative of this.

Table 3
HIV Prevalence by Age Comparing 1997 and 1998 Antenatal Survey Findings.

AGE GROUP	Est (HIV+) 95% CI	Est (HIV+) 95% CI
	1998	1997
<20	21.0 (18.4 – 23.8)	12.7 (11.3 – 14.2)
20-24	26.1 (24.1 – 28.1)	19.7 (18.4 – 21.0)
25-29	26.9 (24.7 – 29.0)	18.2 (16.8 – 19.6)
30-34	19.1 (17.1 – 21.1)	14.5 (12.9 – 16.2)
35-39	13.4 (11.2 – 15.6)	9.5 (7.7 – 11.5)
40-44*	10.5 (6.8 – 14.1)	7.5 (4.4 – 11.8)
45-49*	10.2 (0.4 – 20.0)	8.8 (1.9 – 23.7)

Source: Health Systems Research & Epidemiology, Department of Health, 1999

Wilson and Lavelle (1993) claimed that Sub-Saharan Africa has many vulnerable groups e.g. prostitutes, their clients, persons with sexually transmitted diseases (STD's), truckers, the military, migrant labourers and other mobile or transient groups. Mays and Cochran (1988) contend that AIDS poses a serious threat to those who live in geographic areas with a higher AIDS incidence. For example, Kustner et al. (1994) claimed that Kwazulu Natal had the highest incidence in South Africa. At a science meeting of the American

Association for the Advancement of Science, Haseltine, a Harvard AIDS researcher (quoted in Cantwell, 1994), estimated that 40 to 100 million people world-wide would be infected by the year 2000, and that by the year 2025 one billion people would be infected with AIDS.

The present author believes that the incidence of AIDS may increase in people of low socio-economic status. This is expected due to lack of knowledge, inaccessibility of proper health care facilities and living standards, lack of understanding of the disease, disbelief, lack of preventative measures, consequences of high risk behaviour patterns, low educational levels and lack of exposure to resources which explain the aetiology and prevention of the disease. This could result in unintentional spread of the disease, due to ignorance.

Various studies by the following authors have addressed factors that could contribute to the spread of HIV: Catania et al. (1992), Lachman (1989, 1991), Luiz, Roets and Smart (1995), Ritcher and Swart-Kruger (1995), Van Rooyen and Engelbrecht (1995), Wilson and Lavelle (1993) and Zazayokwe (1990). These factors include an inadequate health system, poor living standards, lack of education, massive urbanisation, migration, political unrest, conflict and violence, refugee camps, gender discrimination and subjugation of women who are denied sexual rights.

Apart from the above-mentioned factors, Southern Africa is part of Africa, and most areas of this region are underdeveloped. The section of the population that belongs to the underdeveloped world forms the bulk of the South African population. This section is characterised by a lack of resources and illiteracy. The present author believes that this variable could also result in the unintentional spread of HIV. According to Kelly and Murphy (in Lindegger & Wood, 1995) as well as Sikkema and Kalichman (in Lindegger & Wood, 1995) the section of the population that will be affected most by this pandemic is the working class, especially those ranging from 18 to 49 years. This means that AIDS affects those people who are economically active. This could have a serious impact on the economy of Southern Africa. For example, according to Luiz et al. (1995) South Africa

spent R0,65 per capita on AIDS prevention in 1993/1994, whilst Zimbabwe spent R2,79 per capita. The South African Institute of Race Relations' surveys of 1993/1994, quoted in Luiz et al. (1995), claimed that the cost of the AIDS budget in South Africa in the financial year 1994 / 95 was valued at R42 million. This is double that of the previous year when just over R21 million was allocated to combating AIDS. The World Health Organisation (WHO) suggested that South Africa should spend R3, 68 per capita or R143 million per year on AIDS prevention. Kustner et al. (1994) claimed that in all strata a constant rise in HIV prevalence was found and that it doubled almost every twelve months. The prevalence rate in antenatal clinic attenders increased from 0,76% in 1990 to 1,49% in 1991 and 2,69% in 1992 (Kustner et al. 1994). According to Kustner et al. (1994) Natal, especially KwaMashu, formed the spearhead of the epidemic with a 4,77% rate of HIV infection. On 15 April 1999 AM Today, a South African television station, broadcasted that there was a 30% increase of HIV in women who attended antenatal clinics in South Africa. Rape cases increased, especially among children, and this had become a significant contributor of AIDS among children. Leopeng (in "Terrifying Statistics", 1999) claimed that this was due to the belief that sex with a virgin brings mystical powers and can protect a man against AIDS. Perkel, Strebel and Joubert (1991) claimed that HIV/AIDS is a sickness of attitudes and behaviour. Green (1992) argued that the major cause of HIV/AIDS is high risk sexual behaviour and that in Sub-Sahara Africa heterosexual activity was the cause of more than 80% of HIV/AIDS infections. Green (1992) and Perkel et al. (1994) argued that the only effective way to prevent the spread of HIV was through change of high risk sexual behaviour.

Judging from the above, AIDS is the most serious and problematic disease that affects people of all walks of life psychologically, socially and economically in the 1990s. Understanding its impact on the individual and the family opens doors for research on behaviour across colour, class structure, within the same sex, across different sexes and within the same ethnic group. Its impact resulted in a number of studies that were carried out internationally and locally.

2. PREVIOUS STUDIES ON AIDS

A number of studies have been conducted on AIDS in Southern Africa and internationally, especially with regard to knowledge, attitudes, risk behaviour, use of condoms and sources of information dissemination. Internationally a number of cross-ethnic studies have been done, especially in the United States of America. The results of these studies indicated conflicting views. There are those who claimed that whites were more knowledgeable about AIDS than blacks and those who claimed that there were no significant differences between the knowledge of whites, blacks and other ethnic groups. For example, the results of Goh's (1993) cross-ethnic study indicated no significant difference between the knowledge of whites, blacks and Hispanics who rated themselves as knowledgeable about AIDS. The study of Diclemente, Zorn and Temoshok (1987) uncovered that there was a great variation in students' knowledge of the subject. However, Negy and Webber (1991) asserted that there was no significant difference between the knowledge levels of whites and blacks but that both groups were, however, more knowledgeable than Hispanics. A study by Crawford (1990) suggested that whites were more knowledgeable than blacks. A study by Bell, Feraios and Bryan (1990) yielded similar results: whites were most knowledgeable, followed by Puerto Ricans, blacks and Mexicans.

In Southern Africa a similar situation of conflicting views emerged regarding studies on knowledge of AIDS. For example, Cilliers (quoted in Kaplan and Van den Worm, 1992) claimed that children in general had limited knowledge of AIDS, whereas Kaplan and Van den Worm (1992) found that white students were knowledgeable about AIDS. Ndeki, Klepp, Seha and Leshabari (1994), as well as Kaplan and Van den Worm (1992) made the assertion that males were more knowledgeable than females. Kaplan and Van den Worm argued that this was due to the explorative nature of males.

Richter and Swart-Kruger (1995) claimed that South African street children had a relatively good knowledge of AIDS, especially with regard to physical appearance and behaviour.

Akande (1994), in a comparative study of Zimbabwean and Nigerian students' knowledge of AIDS, claimed that the students' knowledge was accurate, especially around areas of AIDS/HIV transmission. However, like in Richter and Swart-Kruger's (1995) study on South African street children, there were problematic areas of uncertainty, especially in behaviour such as dry mouth kissing, sharing a tooth brush, and sharing a shower or razor.

Mathwes, Kuhn, Metcalf, Joubert and Cameron (1990), in a study on Cape Town's black township children, found a lack of knowledge and confusion about the mode of transmission of AIDS around areas such as chairs and eating utensils. Nicholas and Durrheim (1995) obtained similar findings among black students at the University of the Western Cape. The results indicated a lack of knowledge, also pertaining to sexuality.

An evaluative study by Eagle and Brouard (1995) on professional health workers suggested that there was a significant change in attitudes towards AIDS after an educational intervention.

All studies on AIDS in Southern Africa examined knowledge as one of the variables. These studies include those by Akande (1994), Dalrymple and Du Toit (1993), Eagle and Brouard (1995), Kaplan and Van den Worm (1992), Mathwes et al. (1990), Ndeki et al. (1994), Nicholas and Durrheim (1995), Pattulo et al. (1994), Romero-Daza (1994), Schlebusch, Bedford, Bosch and Du Preez (1991), Wilkins et al. (1989), and Wilson, Wilson, Greenspan, Sibanda and Msimang (1989). When a specific variable – in this case knowledge – is examined in a number of studies, this highlights the importance of this particular variable.

3.THE IMPORTANCE OF KNOWLEDGE OF AIDS AND DISSEMINATION OF INFORMATION

The arguments and studies quoted in the previous section point to the emphasis placed on knowledge of AIDS and dissemination of knowledge, which were taken to be pre-conditions for changing risk behaviour. In certain quarters these factors are still regarded

as the keys to behaviour change. For example, the studies mentioned above used knowledge as one of the variables that were correlated with attitudes, behaviour, risk behaviour and condom use, to name just a few.

International researchers such as Bell et al. (1990) argued that constructive attitudes towards AIDS were associated with higher degrees of knowledge. Adolescents with higher degrees of knowledge seemed to be able to discriminate between constructive and unconstructive attitudes. Bell et al. (1990) claimed that adolescents with lower degrees of knowledge were displaying either indiscriminate or intolerant responses and demonstrated an inability to judge. Negy and Webber (1991) claimed that a lack of knowledge was due to insufficient outreach programmes to dispense AIDS information in the language of the individual. They suggested that education can play an important role in preventing the spread of AIDS and in reducing unnecessary fear of both the disease and its victims. Royse, Dhooper and Hatch (quoted in Kaplan and Van den Worm, 1992) suggested that knowledge about AIDS reduced fear of AIDS and fostered a more positive attitude towards people who have AIDS. Kelly (quoted in Akande, 1994) suggested that in relation to people who have modified the risky aspects of their sexual behaviour, those who still engaged in high risk practices were less knowledgeable about AIDS, and appeared to be more intolerant of and anxious about people with AIDS.

In Southern Africa studies that emphasise the importance of knowledge include, for example, a study by Nicholas and Durrheim (1995), who argued that students who held negative attitudes towards people with AIDS were not well informed in secondary school. Van Dyk (1992) stated that AIDS education was chiefly aimed at disseminating information about AIDS in order to alleviate fear and ignorance, dispel myths, change people's attitudes, and alter sexual behaviour to prevent the spread of HIV infection. Eagle and Brouard (1995) asserted that education or information dissemination was used to prevent infection and lessen stigmatisation. Mathwes et al. (1990) claimed that knowledge was a prerequisite and necessary condition for positive attitudes. Eagle and Brouard (1995) emphasised that attitude change occurred after educational intervention. They claimed that the attitudes of health workers changed considerably after educational intervention on the dimensions of attitudes to homosexuals and black sexuality. Wilkins et al. (1989) suggested that knowledge of AIDS was important when counselling HIV-

positive individuals. He discovered that low levels of knowledge of AIDS made counselling difficult. Ndeki et al. (1994) suggested that students who reported frequent exposure to AIDS information or who frequently talked to others about AIDS were more knowledgeable regarding AIDS than those who reported less frequent exposure to AIDS information or communication. He claimed that those with high scores on knowledge, reported AIDS as a serious disease.

The above-mentioned studies clearly suggest that knowledge of AIDS lessens stigmatisation and fear, dispels myths, ignorance and intolerant behaviour and changes people's attitudes towards sufferers. The present author believes that there is truth in the saying that knowledge is power. Knowledge increases an individual's choices instead of restricting them. It also places responsibility on the individual, by dispelling the notion of pleading ignorance. From the above statements it becomes quite clear that knowledge is a necessary condition for attitude change but an insufficient condition for behavioural change. Akande (1994) suggested that in the absence of a cure or vaccine, education provides the only means by which to prevent and control the spread of HIV. Proponents of the idea that knowledge is not a necessary condition for behavioural change are Bell et al. (1990), Ndeki et al. (1994), Mathwes et al. (1990), Nicholas, Tredoux and Daniel (1994), Akande (1994), and Brandt, quoted in Mays and Cochran (1988).

In an attempt to validate the statement that knowledge is a necessary condition for attitude change, the present author will explain this phenomenon by describing the role of socialisation, social interaction and behaviour. Aronson and Helmreich (1993) defined socialisation as a process of "house breaking humans". The term refers to the learning of approved and acceptable patterns of behaviour in the surrounding environment. Through socialisation we acquire values, attitudes and develop moral codes.

Holy (1976) explained that social interaction (which is a process that is acquired) occurs through socialisation. To be able to interact, to successfully accomplish day to day affairs, indeed to exist as a social being at all, people have to possess adequate knowledge of the society they live in. Lewin (quoted in Severy, Brigham & Schlenker, 1976) stated that behaviour is a function of a persons' characteristics and environment. Attitudes form one of the person's characteristics. Attitudes interact with other characteristics such as

motives, values and personality, which in turn interact with the environment to determine behaviour. Therefore, the outcome of human behaviour is complex. Figure 1 is thus an attempt to explain the above phenomena.

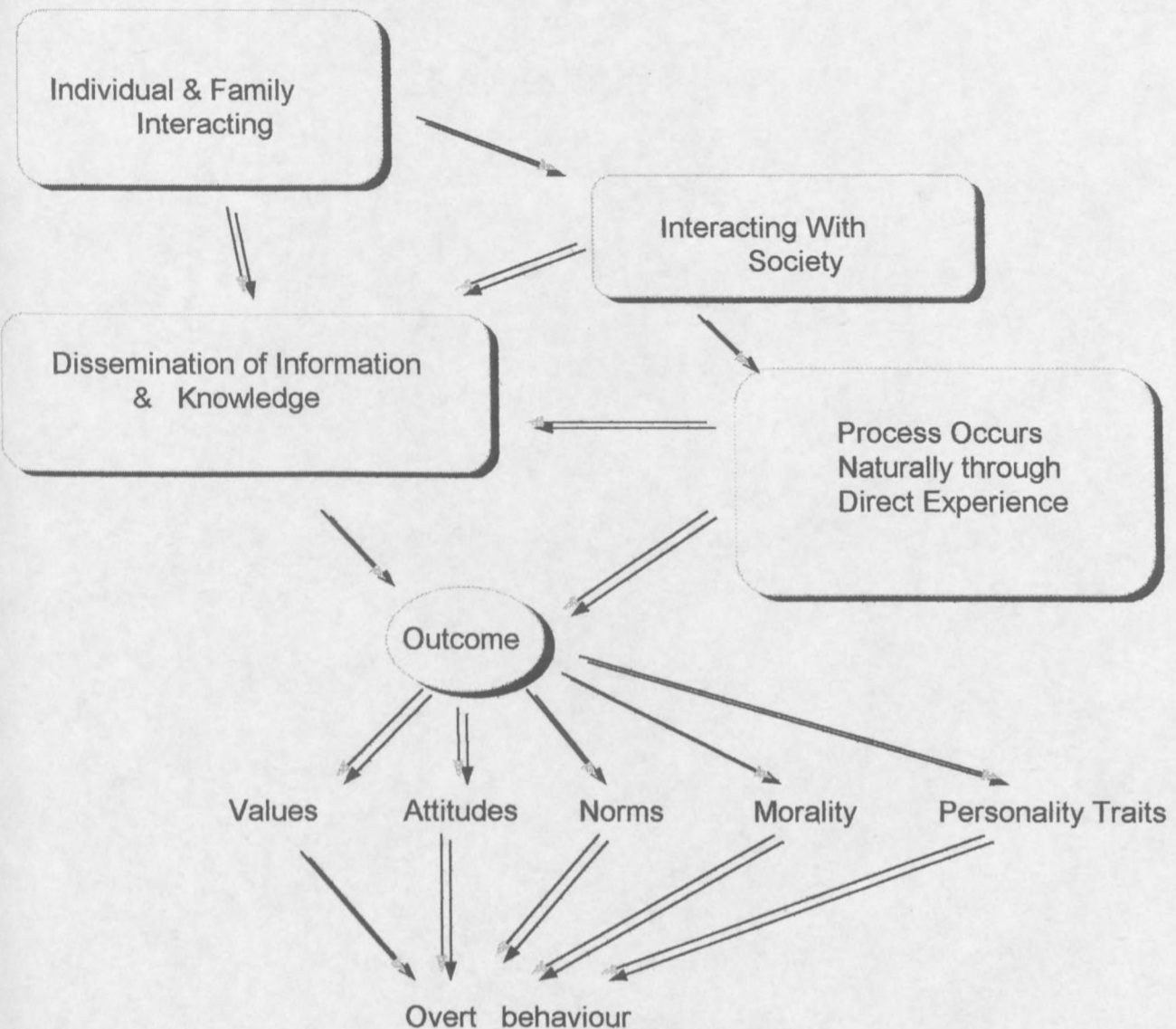


Figure 1. Diagram to indicate that attitudes, values, norms and morality stem directly from socialisation affecting our overt behaviour.

To be able to change behaviour, the sequence depicted in Figure 2 might be appropriate.

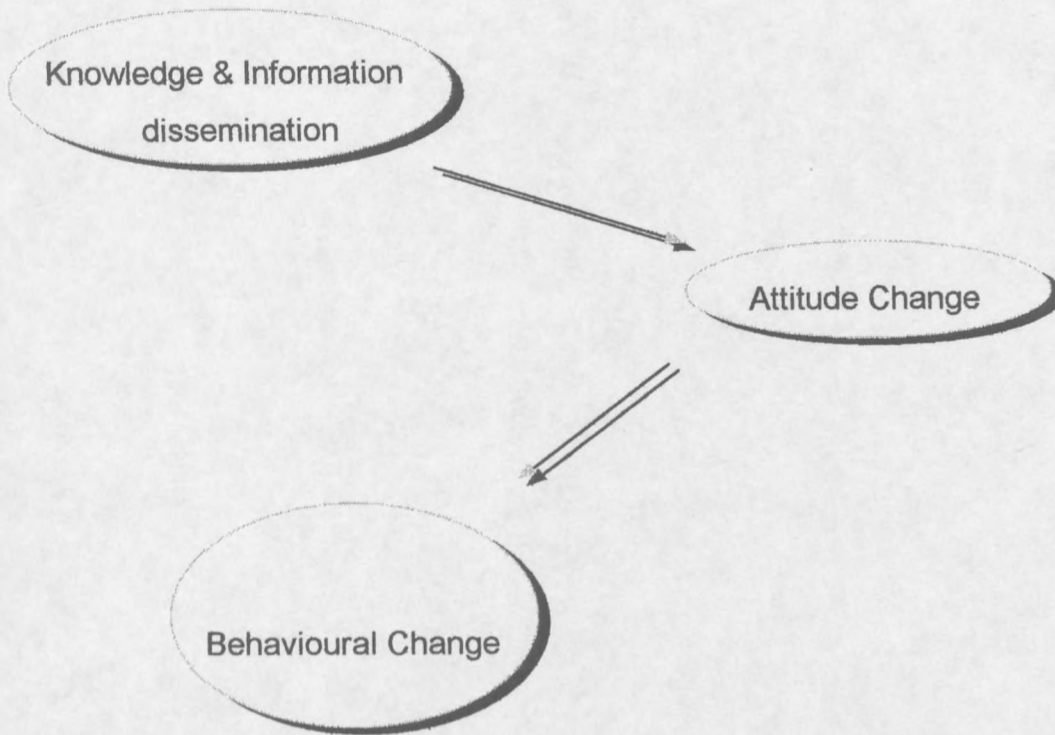


Figure 2. Hypothesized sequence of events required for behavioural change.

Hollander (1976) argued that while attitudes and values are persistent, they are dynamic - that is, changeable. He claimed that attitude change is supposed to be the key to behavioural change, as illustrated in Figure 2. Aronson and Helmreich (1993) contend that education or knowledge can be seen in part as a process of attitude formation and modification. It thus seems that attitudes are an important determinant of behaviour.

Studies on risk behaviour change seem to have concentrated on the sequence depicted in Figure 3.

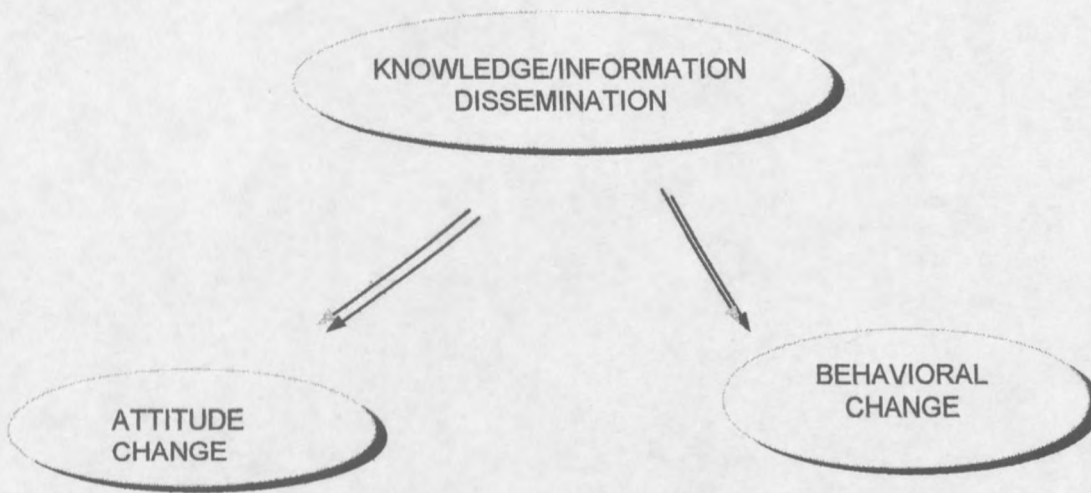


Figure 3. Hypothesized sequence of events required for high-risk behaviour change.

However, in the present author's opinion the above exposition represents a narrow explanation of human behaviour. Lewin (quoted in Severy et al., 1976) stated that behaviour is a function of a person's characteristics and environment. Attitudes are an aspect of the person's characteristics. They interact with other characteristics (such as motives, values and personality traits), which in turn interact with the environment to determine behaviour. Thus the outcome of human behaviour is more complex than anticipated and the above characteristics have to be taken into consideration when behaviour outcome is studied. This implies that the sequence in Figure 2 could be the most appropriate one for behavioural change. Knowledge and information dissemination seem to contribute to attitude change rather than behavioural change. Information dissemination uses communication strategies such as education for changing attitudes. Severy et al. (1976) found that the source or origin of communication, credibility and attractiveness of the communicator were important determinants of whether a message would produce change. Thus communication might not be effective unless these attributes are present in the communicator.

Bouer (quoted in Hollander, 1976), developed a transactional approach of communication which explains why communication does not produce the desired effects. His model included three elements of communication, namely the communicator, the message and the receiver. It is important to note that the receiver of communication is not passive but active. Unless the receiver is actively resistant, he or she will accept the change advocated by the message that involves exchange between the communicator and the receiver. Influence is likely to occur when the exchange is seen as a fair one. If the exchange is not perceived as fair, change will not occur. The motives of the communicator are interpreted by the receiver in the context of his/her own group affiliation and notions about the communicator. Underlying this process are questions such as: What is it that the communicator is after; what does it mean for me? The most reasonable appeal may fail to produce effects if the answer to these questions proves unsatisfactory. This argument gives a clear explanation why certain persuasive messages aimed at attitude change prove to be ineffective. Without attitude change, behavioural change will most probably not occur. Severy et al. (1976) suggested that attitude change can best take place as a step-by-step process. This means that attitude change might not occur during the first exposure to information. Individuals need to be exposed to information or knowledge dissemination on a number of different occasions in order to reach the desired effect. Bouer (quoted in Hollander, 1976), therefore suggested that, according to the transactional approach of communication, attitude change will only occur when the communication is seen as a fair one and is also interpreted within the context of the individual's own group affiliation. If the individual is exposed to information once without repeated re-exposure over a period of time, change might not occur. Severy et al. (1976) claimed that the sleeper effect may occur. This implies that over time the audience may forget the credible source and this may produce a decrease in attitude change. However, the non-credible source is ineffective initially and it stays like that over time. This emphasises the difficulty of producing long-lasting attitude change from only one exposure to a persuasive message.

Severy et al. (1976) and Bouer (quoted in Hollander, 1976) produced a rationale to explain why knowledge or information dissemination may not produce the desired effect in certain situations. This also explains that attitude change which eventually results in behavioural change is not a simple process. Individuals who design programmes for

information dissemination must first target attitudes for behavioural change and need to take into consideration the length of time of communication and the individual's group affiliation. Skinner, Metcalf, Seager, De Swardt and Laubscher (1991) strengthened this suggestion by claiming that ongoing involvement is needed to change old behavioural patterns and maintain new behaviours, so as to protect people from HIV transmission.

4. STUDIES ON AIDS IN SOUTHERN AFRICA

Several studies have been conducted on AIDS in Southern Africa:

Schlebusch et al. (1991) investigated the knowledge of and attitudes to AIDS in a group of health professionals. The study was carried out in a university-affiliated teaching hospital in Durban, South Africa. The focus was on attitudes towards homosexuality, attitudes towards AIDS per se and attitudes towards the sexuality of blacks. Schlebusch et al. (1991) argued that the added historical component of racial attitudes should be considered when examining attitudes towards AIDS. The results pointed to a lack of certainty about the prevalence of AIDS in the Southern African context. This was basically due to inconsistent and inaccurate reporting of cases both in Southern Africa and Africa and the rapidly changing statistics regarding infected people or AIDS patients. Thus awareness about AIDS in Southern Africa was not as high as knowledge about the disease itself. Another discovery was that there were negative attitudes towards black sexuality. The researchers ascribed this to the social fabric of the South African society, which was characterised by racial prejudice.

Schlebusch et al. (1991) made important recommendations about the relationship between attitudes about AIDS and attitudes to the sexuality of black people. The main contribution of this research was to highlight that negative attitudes towards black people in South Africa do not only pertain to those white people who are uneducated, but also to those who have professional dealings with and links to people. The present author believes that effective strategies and interventions need to be targeted at the professionals, to change negative racial attitudes which were due to the political system of

the time. To assume that these attitudes could disappear overnight was unrealistic. As has already been pointed out, attitude change takes a long time. The present author believes that further interventions that foster group acceptance are essential, especially because of the nature of the health worker's job.

A study by Nicholas and Durrheim (1995) was done on black first-year university students studying in South Africa. The study investigated the association of religiosity with the sexuality, AIDS knowledge, and sexual attitudes and beliefs of these students. The researchers found that religious commitment was associated with lower propensity to engage in sexual intercourse and also to later age of consent to sexual activity.

Richter and Swart-Kruger's (1995) study was conducted on street children in nine cities of South Africa. The focus was to determine the subjects' knowledge about the transmission and prevention of AIDS, attitudes towards AIDS and people with AIDS, as well as sexual and other behaviour related to AIDS risk. The researchers found that the children possessed a relatively good knowledge of AIDS. There were, however, problematic areas such as negative attitudes toward condoms and to people with AIDS. The study did not focus on sources of information, which could give an indication of whether it was necessary to strengthen the source of information or to change it completely. Negative attitudes towards condoms, for example, could be due to inadequacy of the information sources to address the vital issues. These vital issues include modes of transmission, which also proved to be problematic because the children did not have proper information about who could be infected.

Mathwes et al. (1990) studied Cape Town high school students from black townships. This study focused on information, knowledge of AIDS, attitudes towards AIDS, and sexual behaviour. The students claimed to have heard of AIDS but did not regard themselves as vulnerable. They also expressed intolerant fear and rejection of people with AIDS. In addition, they were poorly informed about modes of transmission of AIDS. This research did not take the socio-cultural factors prevalent in the townships into consideration. The researchers did not study in depth the students' perceptions about the consequences of their own sexual behaviour or whether this behaviour was sanctioned by the community from which they came.

Dalrymple and Du Toit (1993) conducted a study amongst scholars at a high school in Zululand. This project was sponsored by the Department of Health. The awareness programme was initiated by the Department of Drama at the University of Zululand. The programme was called "The AIDS and life-style education project" and was aimed at promoting health education about AIDS prevention. The researchers also evaluated the efficacy of the programmes' intervention strategy. The programme consisted of three main components: the main component was a drama that was performed by a group of actors and teachers. The second component was a drama workshop designed to inform scholars about AIDS and AIDS prevention. The third component was intended for parents and the local community. Parents and the local community were invited to watch a programme of plays, songs, speeches and poems about AIDS. A Likert-type scale was administered to assess the efficacy of the drama intervention.

Dalrymple and Du Toit's (1993) results indicated a positive attitude amongst students towards sex education in the school context. It also indicated an increase in the knowledge about AIDS. It failed to show dramatic change in attitudes of the students. Problems encountered by the researchers were that students lacked semantic depth and they were not articulate in English. Lessons learned from the study included that many of the translations into Zulu did not succeed in clarifying the items. Interpretation was culture related. Statements which were perfectly in order in English were regarded as taboo when translated into Zulu. The researchers advised that solutions imposed by outsiders were unlikely to become accepted and that the involvement and commitment must come from within the community. Courtney (quoted in Dalrymple & Du Toit, 1993) postulated that the advantage of the drama workshop was its ability to provide a way of exploring values without imposing them on the individual. Drama has the ability of leaving a vivid picture in the mind and can be a useful educational tool, especially with uneducated people.

Eagle and Brouard (1995) did a cross-ethnic study in Pretoria, South Africa. They administered questionnaires which were developed by McManus and Morton (1986), including a subscale developed for use in the South African context, to health care professionals. The scale focused on knowledge of AIDS, attitudes towards AIDS,

attitudes towards homosexuality and attitudes towards black sexuality. A control questionnaire was administered in J.G Strydom Hospital, Pretoria, before the lecture. The experimental group completed the questionnaire on the day they attended a lecture on AIDS. After a month the same questionnaire was mailed to the course attenders to examine changes in knowledge and attitudes.

The problem with the study of Eagle and Brouard (1995) is that attitudes cannot change significantly or may not change at all after one exposure to AIDS information. For attitudes to change, repeated presentation of the information is required. The researchers themselves pointed out the out-datedness of the scale. Scales developed in industrialised countries such as the United States of America and Britain could be used to assess and give insight into attitudes towards AIDS and black sexuality. Such scales need to be adjusted to South Africa and the Southern African context, taking into consideration the world view of the individual's domicile in this region and also their socio-cultural and political reality.

Nicholas et al. (1994) conducted a study on black university students. They focused on obtaining information about knowledge of AIDS, attitudes towards AIDS and attitudes towards homosexuals. This study was done on first year students. The researchers found that the students had negative attitudes towards homosexuals. Their knowledge about AIDS was lacking in factual correctness. The researchers came to the conclusion that these students did not receive proper AIDS education in high school. The present author is of the opinion that the researchers did not take the social and cultural background of the students studied into cognisance. Homosexuality is taboo in black communities, with the result that black homosexuals may not reveal themselves due to fear of ostracisation by their families and communities. Compulsory sexual education is non-existent in most schools in black communities.

A study by Pattulo et al. (1994) was conducted in secondary schools in Kenya. The researchers used a survey method and focused on the evaluation of the knowledge of AIDS, attitudes towards AIDS and sexual behaviour of these students. Past and present sexual behaviour and the use of condoms were investigated. The students exhibited adequate knowledge but there were limitations in areas such as modes of transmission.

The present author believes that this was due to environmental factors and might also be due to the AIDS educational programmes that do not address the reality of Kenyans.

A limitation of the study by Pattulo et al. (1994) is that assumptions were made on the basis of studies conducted on sex workers in Zimbabwe. This might not be true for Kenya. Studies in Kenya need to focus on where the male students obtained their sexual experience and with whom they had sexual encounters. This information could help in proper education programme development and could help in preventative measures aimed at this group. Research in this area could establish whether there are similarities between Kenya and Zimbabwe. A positive aspect of the above-mentioned study is the recommendations for further studies in areas which might reveal reasons for lack of behavioural change, for example, poverty, poor access to education and health care, reduced sexual and reproductive choices for women in a male-dominated society, lack of economic resources for single women leading many into the commercial sex trade, and disruption of family structures due to movements of a large male labour force to large cities, leaving wives and children on rural plots. These recommendations thus focus on socio-economic factors as well as cultural factors.

A study by Kaplan and Van den Worm (1992) was carried out in South Africa on 50 South African white English-speaking adolescents (25 males and 25 females). The study examined the possible correlations between fear of AIDS, knowledge of AIDS and attitudes towards people who have AIDS. The results indicated that the adolescents were relatively knowledgeable about AIDS. However, it was found that boys were more knowledgeable than girls were.

Wilkins et al. (1989) carried out a serological survey in Gambia. The aim of the study was to establish the level of knowledge of AIDS in the community and the existing patterns of condom use. The study also evaluated the ways in which asymptomatic seropositive subjects could be managed in the specific context of an African society. Subjects who were found to be seropositive were informed about their status and counselled. The advantage of this study was its emphasis on education about AIDS before proper counselling could occur.

Ndeki et al. (1994) conducted a study on sixth and seventh grade students in Arusha, Northern Tanzania. They assessed sources of AIDS information, level of AIDS knowledge, perceived risk and perceived severity of AIDS, and attitudes towards people with AIDS. On average the students' knowledge of AIDS was low with respect to risk associated with casual contact. The strong point of the study was the adaptation of the World Health Organisation's standardised survey of AIDS related knowledge, attitudes, beliefs and practices (KABP) instrument for adolescents to the context of Tanzania. Taking instruments developed elsewhere and applying them in another context without adaptation could result in a negative outcome because the situational contexts are different.

From mid 1987 to 1988, Wilson et al. (1989) launched an AIDS awareness campaign in Zimbabwe. Before the campaign, questionnaires were administered to teacher trainees, adolescents from rural and urban schools and Sindebele speaking adults. The questionnaires measured AIDS knowledge, changes in knowledge during the national AIDS campaign, self-reported sexual behaviour, intention during the awareness campaign and intended behavioural change. The same questionnaires were administered to the respondents after the campaign. The advantage of the study by Wilson et al. (1989) was its emphasis that messages should be delivered correctly. The data obtained suggested that future educational campaigns should emphasise that AIDS was transmitted primarily by heterosexual intercourse. The researchers reported that some of the respondents intended to reduce the number of their sexual partners and to use condoms more frequently because of AIDS. In accordance with the claim made by Hollander (1976), namely that attitude change is a process that takes a long time, this might have occurred with this group in view of the fact that the campaign extended over a year.

Perkel et al. (1991) used a modified form of the World Health Organisation's Global Programme on AIDS (GPA) in a study conducted on students at the University of the Western Cape. The questionnaire elicits responses of knowledge, attitudes and beliefs. The latter part elicits basic information that could provide variables with which psychological aspects could be compared. The information investigated included knowledge and awareness of AIDS, sources of information, beliefs, attitudes and behaviour regarding AIDS, condom use, sexual practices and intravenous drug abuse.

The researchers reported that it appeared that the social context as well as people's intra-psychic anxieties were important in relation to sexual attitudes and behaviour changes. However, as much as this is true, the present author is of the opinion that human behaviour is too complex to be explained in terms of a limited number of variables related only to personality. Situational factors are also important determinants of behaviour, as are cultural variables and socio-economic factors. In this regard Lewin (quoted in Severy et al., 1976) claimed that behaviour is a function of a combination of a person's characteristics and environment.

Jameson and Glover (1993) administered a questionnaire to student teachers at Rhodes University, theological students at the theological college in Grahamstown, and health care professionals at Settlers Hospital in Grahamstown. The questionnaires evaluated current awareness, attitudes and opinions regarding AIDS. Each group attended a lecture about AIDS. Slides were shown of actual cases of the disease and its complications. After six weeks the same questionnaires were administered to the same groups. The results of the first questionnaire exhibited that the participants were aware of the condition, but that the mechanism of the disease was poorly understood. The level of knowledge of the health care professionals was lower than expected. The results of the questionnaire administered after six weeks showed that there was an increase in AIDS awareness and more positive attitudes.

Romero-Daza (1994) carried out a study on 195 randomly selected households from five rural villages and the administrative centre in the district of Mokhotlong in Lesotho. Interviews were conducted with the mother or caretaker of the family. The first visit was aimed at establishing rapport. Data were collected on the second and third visits. The interview centred on knowledge of AIDS and beliefs about the disease. Sources of information were also cited. The data were interpreted by taking into consideration the socio-economic conditions in which the sample population lived. The results indicated that the sample population was aware of the facts about AIDS transmission. Knowledge about the symptoms of the disease was limited. The advantage of this research was its explanation of the socio-economic factors which made these women engage in risky behaviour. The researchers failed, however, to recommend programmes that could be implemented to educate people about AIDS and that would also address the conditions

that led to high risk behaviour. This is a problem that should not only be actively addressed by the Department of Health, but also by departments such as Welfare, Labour and Local Government. All these departments need to be actively involved, thus using a multidisciplinary approach.

5. DISPARITIES IN STUDIES ON AIDS IN SOUTHERN AFRICA

The studies discussed in the previous section show a number of disparities. The disparities displayed in these studies are subsequently discussed in terms of the aims of the studies and the variables linked to knowledge of AIDS, such as ethnicity, gender, educational level, urban / rural dichotomy, age, knowledge of resources and methodology.

(a) Aim

The aims of the various studies on AIDS conducted in Southern Africa show a wide disparity:

Richter and Swart-Kruger (1995) researched knowledge linked to risk behaviour with a view to implementation of intervention strategies. Kaplan and Van den Worm (1992) focused on the correlation between fear of AIDS, knowledge and attitudes of different sexes. Mathews et al. (1990) focused on knowledge and sexual behaviour. Nicholas and Durrheim (1995) focused on attitudes towards AIDS, sexual behaviour and baseline data on attitudes towards homosexuals. Schlebusch et al. (1991) focused on AIDS knowledge and categories of attitudes. Pattulo et al. (1994) focused on past and present sexual behaviour, attitudes towards and knowledge about AIDS. Wilkins et al. (1994) focused on the use of condoms, existing patterns of sexual behaviour, counselling of asymptomatic sero-positive individuals and the level of knowledge of AIDS in the community. Ndeki et al. (1994) focused on the perceived severity of AIDS and attitudes towards people with AIDS. Akande (1994) focused on knowledge, beliefs and behaviour patterns regarding AIDS. Romero-Daza (1994) focused on the conceptualisation of AIDS by Basuto women and the association between educational level, baseline knowledge and changes in

knowledge during the national AIDS campaign. Dalrymple and Du Toit (1993) evaluated a drama intervention strategy that was used to increase the knowledge and change in attitudes of Zulu-speaking high school students. Bosompa (1992) focused on the attitudes, knowledge of AIDS and behaviour changes. Nicholas et al. (1994) focused on the knowledge and attitudes of first year black students and their attitudes towards homosexuality.

Previous researchers thus attached different meanings to a central variable such as knowledge of AIDS. This may hamper the designing of programmes for AIDS prevention.

(b) Gender

From the studies conducted in this regard, it is apparent that differences exist among the sexes about awareness of AIDS, attitudes towards people with AIDS, knowledge of AIDS and modes of transmission of AIDS.

A study conducted by Romero-Daza (1994) on women in Lesotho uncovered a high degree of awareness about AIDS and a number of misconceptions about its transmission. However, Wilkins et al. (1989), Kaplan and Van den Worm (1992) and Ndeki et al. (1994) found that women were less informed than men about AIDS. Kaplan and Van den Worm (1992) argued that this difference was due to that fact that males were exploring their sexuality during adolescence to a greater extent than females.

The present author is of the opinion that gender differences in knowledge of AIDS could be related to information sources, i.e. exposure or lack of exposure to such sources. Mathwes et al. (1990) found that black students of both sexes had an equal amount of knowledge about AIDS. A study by Richter and Swart-Kruger (1995) also showed that street children of both sexes had a relatively good knowledge of AIDS. Richter and Swart-Kruger (1995) found that there were limitations in knowledge about modes of transmission of AIDS in street children, and Mathwes et al. (1990) obtained similar findings in black students. However, Nicholas et al. (1994) reported that both sexes showed inadequate knowledge and misconceptions about AIDS and prejudice towards homosexuals and

people with AIDS. Nicholas et al. (1994) argued that this was due to the fact that students were not well informed about AIDS in secondary school. Emphasis is thus placed on the necessity of effective dissemination of information.

The above-mentioned studies thus show disparities in knowledge between the sexes and limitations in knowledge regarding modes of transmission of AIDS. Intended intervention programs should focus on the differences in understanding portrayed by the sexes regarding knowledge of AIDS.

(c) Urban/rural dichotomy

Woman and men in rural areas understand and perceive their surroundings differently from individuals living in urban areas. This is most probably due to a lack of exposure to health care facilities, educational facilities and modern technology in rural areas.

Wilkins et al. (1989) contended that those living in rural areas are less likely to possess the same level of knowledge of those in urban areas. Wilkins et al. argued that this was due to poor media circulation in rural areas. However, Romero-Daza (1994) claimed that this phenomenon was due to the difference in socio-economic status between urban and rural areas. The present author believes that socio-economic status plays an important role in the class structure of the individual, and thus assumptions about the individual could be made. For example, people in low socio-economic groups are not exposed to a variety of health care facilities and educational facilities. This could result in a lack of understanding of AIDS as well as its prevention in people in rural areas who are generally of a low socio-economic status, and this group could unintentionally spread the disease because of ignorance.

Bosompa (1992) argued that urban participants accepted that AIDS was a health problem in their community but rural participants distanced themselves from AIDS. Romero-Daza (1994) discovered misconceptions about the mode of transmission of AIDS in rural women. However, a study by Wilkins et al. (1989) indicated no difference between urban and rural adult groups in Zimbabwe pertaining to knowledge of modes of transmission of

AIDS. Ndeki et al. (1994) claimed that students from urban schools were more knowledgeable about AIDS than those from rural areas.

It thus seems that rural areas are lagging behind in terms of knowledge about AIDS and modes of transmission.

(d) Ethnicity

A lack of cross-ethnic studies has robbed Southern Africa of comparisons between different race groups. This has incapacitated AIDS policy makers in developing programmes targeting particular race groups. In Southern Africa only a small number of cross-ethnic studies have been done on AIDS, although several such comparative studies have been done abroad. The present author believes that this was due to the South African politics of the 1970's, 1980's and early 1990's. Researchers feared to be branded as racists. Cross-ethnic studies thus formed an area that remained untapped.

Studies on single groups include the following: a study by Mathwes et al. (1990) on black students from township schools in Cape Town, a study by Kaplan and Van den Worm (1992) on white English-speaking middle class school children in Pretoria, a study by Romero-Daza (1994) on Basuto women, a study by Dalrymple and Du Toit (1991) on Zulu-speaking high school students, a study by Wilkins et al. (1989) on a randomly selected population in Gambia, restricted to subjects of 15 years old, a study by Bosompa (1992) on Ghanians of both sexes, youths and adults, educated and uneducated, a study by Pattulo et al. (1994) on Kenyan secondary school students, and a study by Ndeki et al. (1994) on Swahili-speaking Tanzanian students. Akande (1994) conducted a comparative study between two countries (Zimbabwe and Nigeria). The language criterion was fluency in English. Eagle and Brouard (1995) and Schlebusch et al. (1991) conducted cross-ethnic studies on health care professionals.

From the above it is evident that there is a lack of cross-ethnic comparisons regarding knowledge of AIDS in South Africa.

(e) Educational level

Education plays a significant role in understanding modes of transmission of AIDS and understanding of precautionary measures on how to avoid AIDS infection. Exposure to AIDS education has raised the level of awareness of AIDS and the consequences of engaging in high risk behaviour.

Romero-Daza (1994) and Wilkins et al. (1989) argued that there is a positive correlation between the level of education and knowledge about the transmission of AIDS. Wilson et al. (1989) found that educated subjects were more informed about AIDS than less educated subjects. However, Nicholas et al. (1994) reported that students of the University of the Western Cape's knowledge of AIDS was inadequate. Nicholas et al. (1994) claimed that this was due to the neglect of AIDS and sex education in secondary schools. Wilkins et al. (1989) pointed to the disadvantage of lack of adequate education and claimed that this resulted in difficulty in counselling.

The above claims lay emphasis on information dissemination. Education has the ability to dispel ignorance by placing the responsibility for his or her survival on the individual. Education dispels fear, changes attitudes towards people with AIDS and fosters acceptance of people living with AIDS. Understanding of AIDS has united countries to fight against the spread of AIDS, making AIDS one of the global commons such as the ozone layer.

(f) Age

Researchers who focused on age as one of the variables in the studies on knowledge of AIDS emphasised the importance of a particular age group and its level of vulnerability in contracting HIV/AIDS.

For example, the focus of a number of researchers was on sample populations with mean ages that ranged from 14 years (Ndeki, 1994), 15 years (Richter & Swart-Kruger, 1995), 15.8 years (Akande, 1994), 16.3 years (Pattulo et al., 1994), 17.55 years (Kaplan & Van den Worm, 1992), to 20.4 years (Nicholas & Durrheim, 1995). These ages signify an

important developmental stage, i.e. adolescence to early adulthood.

The reasons for the emphasis on adolescents and early adults are as follows: Pattulo et al. (1994) argued that this developmental stage was important because at this stage sexual habits are formed and adolescents might be putting themselves at risk for HIV infection through ignorance and experimentation. Baldwin and Baldwin (in Akande, 1994) contended that research had shown an increase of AIDS amongst adolescents over the last couple of years. Crawford (1990) claimed that adolescents believed that there is a low incidence of AIDS among their peers. The present author believes that people of different ages have different assumptions about AIDS, due to lack of maturity and understanding during the earlier developmental stages. However, on the other hand Akande (1994) argued that students in Nigeria and Zimbabwe, whose ages ranged between 17 and 21 years, had accurate knowledge about AIDS, while Kaplan and Van den Worm (1992) found that white students with an average age of 17,55 were knowledgeable about AIDS. This means that relatively young age was thus not an indicator of poor knowledge.

Reasons for researchers to focus on adolescents and young adults are that these groups are vulnerable to HIV because of high risk behaviour patterns, experimentation and assumptions about the low incidence of AIDS among their peers. There is increasing evidence that AIDS is increasing in this group.

(g) Availability of knowledge resources

Individuals who are frequently exposed to sources that explain the modes of transmission and prevention methods have a better understanding of AIDS than those who are not exposed to those sources. They are more knowledgeable about HIV/AIDS. Availability of adequate knowledge sources played a role in the outcome of previous findings.

Ndeki et al. (1994) found that students who were exposed to a number of different sources of AIDS information at least once during the previous month were more knowledgeable than students who reported less exposure to AIDS information.

Different countries used different intervention strategies and resources. For example, in Tanzania the most frequently used sources of information were the mass media (radio, newspapers and magazines, local health workers and religious leaders). Ndeki et al. (1994) found that in Lesotho about 40,5% of their respondents learned about AIDS through informed conversation with friends and acquaintances, 38,3% through government hospital activities, and 11,3% through the radio, magazines and newspapers. Only about 8,7% received information through the second largest source of Western medical care in the area, i.e. a clinic run by the Catholic Mission. Wilson et al. (1989) claimed that in Gambia only newspapers and magazines were used as sources of information about AIDS.

The present author thus believes that the type of source individuals used to gather information had implications for proper understanding of AIDS. This also means that understanding of AIDS depends on the availability of that particular source. Understanding resource availability also has implications for what kind of intervention will be suitable to raise the level of knowledge and understanding of AIDS. As pointed out by Wilson et al. (1989), newspapers and magazines have limited circulation in rural areas. The present author thus contends that this could result in vital information not reaching people in rural areas.

(h) Methodology

The method used by the researcher has implications on the outcome of the study. In studies of knowledge of AIDS, it is especially the type of information that is included and the way in which it is included, that are important variables.

Most studies on AIDS used questionnaires, e.g. the studies by Pattulo et al. (1994), Eagle and Brouard (1995), Nicholas et al. (1994), Kaplan and Van den Worm (1992), Schiebusch et al. (1991), Mathwes et al. (1990), Wilkins et al. (1989), and Nicholas and Durrheim (1995). The length of these questionnaires ranged from approximately 20 to 30 pages.

Other studies used interviews for obtaining information (Richter & Swart-Kruger 1995; Romero-Daza, 1994). Romero-Daza (1994) used this methodology in her study of women in the Lesotho highlands, while Richter and Swart-Kruger (1995) used interviews in their study of street children. The present author assumes that the above-mentioned researchers chose the interview method because both samples were semi-educated or uneducated. In these studies the questions asked and the aim of the research determined the questions asked and the outcome of the research.

The present author focused on a number of studies that used questionnaires and were explicit in the questions asked, in an attempt to determine which items incorporated in the studies may have resulted in different outcomes.

The study by Nicholas et al. (1994) focused on questions that tapped knowledge of AIDS and attitudes towards homosexuals. Wilkins et al.'s (1989) study depended mainly on further probing of those who had knowledge about AIDS and how this knowledge was acquired. On the other hand, Ndeki et al.'s (1994) study did not depend on whether the respondents had knowledge of AIDS. These researchers used statements regarding HIV transmission routes and AIDS. Wilkins et al.'s (1989) study used further probing if a person indicated that he/she was heterosexual. This probing was about the kind of person from whom AIDS could be acquired. Questions were asked about avoidance. This also depended on whether a person had heard about AIDS. Questions were also related to individuals who wanted to use condoms but did not do so and for what reason.

The method used by Wilkins et al. (1989) was totally different from that of Ndeki et al. (1994). Ndeki et al. (1994) used an adapted version of the World Health Organisation's Questionnaire. The focus was to investigate exposure to AIDS information, communication about AIDS, perceived severity of AIDS, perceived susceptibility to AIDS and beliefs regarding the determining causes of AIDS. Akande (1994) focused on past and present sexual practices of respondents, beliefs about safe sex, means and modes of transmission, sexual practices, e.g. avoidance, associating with certain groups or persons because of the risk of contracting AIDS, condom use in oral and anal intercourse, and using condoms with a regular partner and a casual partner. A partner scale was also

incorporated, including a partner distinction, avoiding and associating scale. Sex differences regarding beliefs about condom use were also investigated. The partner scale also involved asking a potential partner about his/her previous drug or transfusion history. The avoidance scale involved avoiding associating with people from high risk countries, homosexuals, lesbians, prostitutes, persons with haemophobia, drug users and people who worked with blood products.

The questionnaires were also structured differently: Pattulo et al. (1994) used a multiple choice questionnaire, Kaplan and Van den Worm (1992) used a Likert type response scale and Nicholas et al. (1994) used a questionnaire with responses termed "agree", "disagree" and "don't know".

The above differences regarding the focus areas and types of questionnaires used in the various studies, determined the outcome and results of the studies involved. The way in which the research variables were defined and conceptualised and the research methodology had an impact on the outcome of the research. For example, Lindegger and Wood (1995) criticised the KAPB (examining knowledge, attitudes and risk behaviour) studies done in South Africa on AIDS on the basis of the variables used, which appeared to have different meanings in different studies. According to Lindegger and Wood (1995), behaviour refers to current behaviour in one study and to behavioural change in another of the KAPB studies. Similarly, risk perception may refer to perceptions of present vulnerability, for example, how likely the person is to contract HIV and the likely effects of indulging in risk behaviour. Thus the way in which the variables are defined and conceptualised in a study might cause disparities in the outcomes of different studies in the same research area. This may have implications for intervention programmes that are implemented, as well as for generalisability to other groups.

6. CONCLUSIONS

In South Africa, as elsewhere in the world, a number of intervention programmes have been implemented with little or limited success.

Wessels (1996) criticised the preventative models that are attempting to change risk behaviour of South Africans. He claimed that the Health Belief Model (HBM), submitted to the National Health Plan and the AIDS Awareness Plan used in the Western Cape, does not address Africans holistically, but only addresses attitudes, medical facts, beliefs, skills, sexuality, prevention of high risk behaviour and care of AIDS patients, instead of attacking the roots of beliefs and attitudes, namely cultural and spiritual worldviews.

The present author believes that preventative programmes that have been implemented, especially in South Africa, neglected to take the whole social fabric of the individual into cognisance. This includes living conditions, employment, shelter, culture and worldview. In this regard it is essential to focus on Maslow's hierarchy of needs (in Kretch, Crutchfield, Livson, Wilson & Parducci, 1982):

- Physiological needs, for example, hunger and thirst
- Safety needs, for example security and stability
- Needs for belonging and love, for example affection and identification
- Esteem needs, for example prestige and self-respect
- Needs for self-actualisation

Maslow (in Kretch et al., 1982) stressed the development of the need for motivation and claimed that a lower need must be adequately satisfied before the next need in the hierarchy can be activated in the course of a person's development.

Is it therefore possible to talk about preventative issues when living conditions of individuals, such as inadequate shelter and overcrowding, are the people's concern? Is it possible to encourage individuals to focus on health issues when their main concern is poverty? This might be the reason why some preventative messages do not result in the desired outcome. Cadwell, Orubulaye and Cadwell (in Lindegger & Wood, 1995) and Tengani (in Lindegger & Wood, 1995) argue that it is likely that in parts of South Africa, as in other Third World economies, the threat of AIDS may be perceived as relatively minor and non-immediate in comparison with other life-threatening issues experienced on a

daily basis, for example, hunger or violence. Mays and Cochran (1988) claim that the key to poor ethnic women's response to AIDS is their perceptions of its danger relative to the hierarchy of the risks present in their lives and the existence of resources available to act differently. This thus means that before people are bombarded by programmes to prevent AIDS, their major concerns have to be addressed first. Koop (in Mays & Cochran, 1988) made this claim: "Some risk reduction measures advise the general public to consider abstinence" (p.95). Mays and Cochran (1988) argued that for poor women sex may function as a source of employment, or a method for establishing ownership or propriety rights in a relationship as a means of acquiring much needed tangible emotional support. Under these circumstances abstinence is not a realistic option.

Mays and Cochran (1988) presented a social responsibility model that could be incorporated when developing AIDS prevention programmes that are targeted at the black population. Prevention methods need to focus comprehensively on the individual as a responsible member of a social or familial network. For example, African Americans' ethnically based values of co-operation and unity may be more powerful motivations of behavioural change than strict appeals to individualistic action, such as to protect oneself. One model of AIDS education that appears effective in changing attitudes and behaviours in some segments of the black community is an appeal for change based on responsibility to others and the community. For example, men are asked to practice safer sex in order to survive as a needed father or to support their parents. Women are asked to be more creative regarding condom use in order to stay alive to take care of their parents. Possibly men and women could be encouraged to assure the existence of the black race and to build a future for others.

The above arguments highlight the deficiencies that are present in preventative methods that have been implemented in South Africa up to now; that is, a failure to take into consideration the cultural and spiritual worldviews and the social fabric of the individual (living conditions, employment, shelter). The present author thus contends that it is a known fact that AIDS is spreading at a very high rate. This could also be due to the fact that the social needs of the individuals were not addressed. If these needs had been

addressed, higher needs would emerge that might include self-protection against diseases. The social fabric needs to be addressed by a multidisciplinary approach that includes all the stakeholders, that is, the Department of Labour, Housing, Welfare, Education and Health. AIDS is not an isolated health problem because it also affects the economy of the country through deaths of members of the working force, especially people between the ages of 25 and 45.

This article has also pointed out the importance of knowledge in lessening stigmatisation, fear, myths, ignorance, intolerant behaviour and negative attitudes towards people with AIDS. Knowledge can only be imparted when the social needs of the individual have been met. This also highlights why risk behaviour change messages have not been successful. Knowledge or information dissemination needs to target attitudes in order for behaviour to change. It has thus become apparent that most researchers have concentrated on the wrong sequence, i.e. they assumed that knowledge equals behaviour change without targeting attitudes which could result in behavioural change. This could only occur within proper information dissemination strategies. Thus communication must be clear. Simple messages will heighten credibility and avoid confusing phrases that are easily misunderstood. It is thus important to take the target group into consideration and not to assume that the message delivered will necessarily be regarded as fair. Changing attitudes and behaviour is a long process and repetition is needed before attitude and behavioural change can occur. Research done on target groups needs to take the whole social fabric of the individual into cognisance because this might have implications for programmes that are implemented.

7. RECOMMENDATIONS

In the final section of this article the present author makes recommendations in order to assist policy makers and AIDS programme developers to understand the limitations of the programmes that are implemented to combat the spread of AIDS. The present author would like to stress the importance of inclusiveness rather than exclusion, the importance of networking with other government departments to address the basic needs of

individuals before AIDS programmes are implemented, and the importance of observing communication strategies.

For example, Peterson and Marin (1988) advised the inclusion of appropriate cultural information when developing AIDS communication strategies and consideration of culture specific values, attitudes and expectations in designing community interventions. They pointed out that, if written information is used, for example brochures, health information messages will need to be available in both English and the indigenous languages. The latter should not be translated literally from material written in English.

The present author suggests that those who do research amongst populations with cultural specific values should avoid ethnocentricity. They must also take into consideration that culture, values and attitudes are not static but change due to acculturation.

Dalrymple and Du Toit (1993) suggested that solutions imposed by outsiders are unlikely to be accepted by local populations and therefore involvement and commitment regarding AIDS prevention must be generated within the community.

The present author suggests that programmes that encourage attitude change among professionals towards people with AIDS should be implemented at health centres.

Countries in Southern African must develop scales and questionnaires that are specifically designed for the population that is studied. Scales developed elsewhere in the world should be adapted to that population, taking into consideration that there is diversity as well as similarities among groups.

Credible individuals need to be sought for conveying information regarding AIDS to communities.

Mays and Cochran (1988) advised that when targeting behaviour change, it is important to understand the socio-cultural perspective. What is the role of the community norms?

Will sexual risk behaviour change affect economics or emotional support within the specific relationship or family unit? This could also be a fruitful area for research.

Nicholas et al. (1994) suggested that investigating which messages affect sexual risk behaviour among students through repeated studies on the same population is important.

Goh (1993) advised that cross-ethnic studies could be helpful in designing sensitive and effective AIDS prevention programmes for different ethnic groups. The present author is of the opinion that this is an area which has been under-researched in South Africa, basically due to the Apartheid laws of the 1970's, 1980's and 1990's.

Schools should be targeted for AIDS education in consultation with parents and governing bodies of schools.

Heise and Elias (1995) suggested these guidelines regarding the development of AIDS prevention programmes that target women:

- (i) Promotion of gender equality should be a central focus of a national AIDS plan. The South African government has already appointed a gender commission to examine the status of women.
- (ii) Government can help eliminate the financial inducement to multiple partners by revising laws and labour codes to guarantee women the right to own and inherit property, to earn salaries on par with men, and to have equal access to credit and training.
- (iii) Expansion of female education, educating women about their rights, fighting the cultural beliefs and biases that denigrate women and that value boys above girls, and helping women to organize on their own behalf, should be actively promoted.
- (iv) Women should be made part of the dialogue that establishes policy and distributes resources.
- (v) Women should share power equally with men in both the public and the private spheres.
- (vi) Attention should be paid to group processes and empowerment within existing AIDS programmes.

- (vii) Concerted efforts should be made to develop microbicidal products for intravaginal use.

The government should implement tax incentives to business to encourage greater involvement in the war against AIDS.

South Africa has in the past and even up to now focused on Europe and the USA for solutions for its problems. AIDS is one of them. It should be kept in mind, of course, that in terms of resources and technological know-how, the Western world is far more advanced than African countries. However, South Africa is blessed with one of the most progressive constitutions in the world. It upholds values of equity, freedom and dignity for all, all of which are essential to ensure gender equality in our own country. There is also a legislative framework that seeks to promote gender equality, for example, the Domestic Violence Act, the Maintenance Act and the Customary Marriages Act which bear testimony to this. In addition, national machinery like the commission on Gender Equality is promoted and protected. The empowerment of women brought about by gender equality should undoubtedly contribute to the war against AIDS. Other countries in Southern Africa should follow the South African example. Also, the South African government should implement additional legislation to uplift the status of women in society.

AIDS prevention strategies employed in Southern African countries need to be modified to suit local conditions. Programmes that have been implemented abroad may not necessarily work in Africa. The importance of this fact has only recently been recognised, for example, in "Apartheid Blamed" (1999) it was reported that minister Manto Tshabalala-Msimang was leading a 20 member government party to Uganda on a mission to study the country's AIDS control programme, which is one of the most aggressive in the world. This is a clear recognition of the input Uganda can provide in the fight against AIDS in South Africa. Countries in Southern Africa share problematic characteristics, such as lack of financial and personal resources, overpopulation, overcrowding, housing problems, illiteracy and unemployment. These countries owe the World Bank and International Monetary Fund billions of rands, and have problems repaying the money. These

countries are also undeveloped. Solutions that are working in one country may be beneficial to another.

In the opinion of the present author a multidisciplinary approach is necessary for combating AIDS. For example, involvement of the Departments of Health, Welfare, Local Government and Labour is necessary. AIDS should not be seen as a health problem only, but also as a socio-cultural problem.

By means of the above recommendations, the present author attempted to expose flaws in the programmes implemented in South Africa. Implementing these recommendations can strengthen existing programmes, which will lead to greater success in the attempt to combat AIDS/HIV. It should be especially understood that each group needs programmes specifically designed for that particular group. In designing these programmes, the designers should be aware that diversity must never be used as a tool for discrimination but as a tool to assist the advancement and understanding of mankind.

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